## **ABSTRACT**

There is provided a method of fabricating semiconductor devices that allows ion implantation to be performed at high temperature with ions accelerated with high energy to help to introduce dopant in a semiconductor substrate (1, 101), in particular a SiC semiconductor substrate, at a selected region to sufficient depth. To achieve this the method includes the steps of providing the semiconductor substrate (1, 101) at a surface thereof with a mask layer including a polyimide resin film (2), or a SiO<sub>2</sub> film (107a, 107b) and a thin metal film (105); and introducing dopant ions.

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